

REMARKS

Claims 2-4, 12-26, 57-61 and 65-67 were pending in this application.

Claims 2-4, 12-26, 57-61 and 65-57 were rejected.

In this paper, claims 12, 59 and 65 are amended. Claim 66 has been cancelled.

Report of Interview

Applicants interviewed with the Examiner on March 12. We went over what we were seeking to patent and discussed changes in the language of claim 65 that the Examiner might consider to express our use of a step function to represent certain disruptive events. The claim language that we discussed is essentially as submitted by amendment of claim 65. We seemed to have reached at least a sentiment that the amended wording would distinguish over the art of record.

It was very helpful that the Examiner agreed to conduct a brief search for mentions of a "step function" in the context of inventory systems. With her interview summary of March 27, the Examiner provided three references, over which we believe the amended wording will be allowable.

McIntyre and Miller, "The Selection and Pricing of Retail Assortments: An Empirical Approach", Journal of Retailing (Fall 1999) describes simultaneous optimization of product assortment and pricing. The approach described involves empirical calibration of a model that takes into account elasticity relationships among products that might be selected and prices that might be charged. The article suggests a complicated and sophisticated approach to inventory assortment, with limited application to non-impulse choices. The context in which "step function" was used was to hypothetically describe a particular shopper's allegiance to a product. In practical terms, the paper goes on to aggregate the demand of many individual consumers and hypothesizes that a distribution of consumer opinions would possibly result "in a market demand curve for each product that will approach a smooth function of its price." (paragraph following "Aggregate Market Demand" heading). This context of using the term "step function" is not enough to lead one of skill in the art to the claimed invention.

The second article is an abstract only, as the article was published in Russian. Petrochenko, V.F., and A.I. Sud-Zlochevskii, "Dynamic model of a stock control system

for fixed quantity orders" (Russia 1973). There is too little in this abstract for one of skill in the art to learn from.

Stockton's "Identifying economic order quantities using genetic algorithms", International J. Operations & Prod. Mgmt. (1993) describes a search algorithm adapted from genetic research. The algorithm is adapted to find a best "economical order quantity" (EOQ), as a demonstration of extending the use of genetic algorithms. It is unclear whether there is any practical application of this approach. The phrase "step function" is used in Table III, regarding variables to indicate that demand rate, order lead time and replenishment time might take a variety of forms, including, constant, variable, known, unknown or step function. This context of using the term "step function" is not enough to lead one of skill in the art to the claimed invention.

Having considered the use of "step function" in the art, it appears that our claimed method is only likely to be reconstructed from reference by the use of 20-20 hindsight.

Rejection Under 35 U.S.C. § 112 of Claims 2-4, 12-26, 57-58, 65 and 67

The Examiner rejects **claims 2-4, 12-26, 57-58, 65 and 67** under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter.

Claim 65

The Examiner argues that **claim 65** is indefinite for failing to particularly point out and distinctly claim the subject matter. We believe that the wording of claim 65 that resulted from our interview was considered to have overcome these grounds of rejection.

Therefore, claim 65 should not be rejected under § 112.

Claim 12

The Examiner argues that **claim 12** is indefinite for failing to particularly point out and distinctly claim the subject matter. Claim 12, as amended, no longer includes the language to which the Examiner objected.

Therefore, claim 12 should not be rejected under § 112.

Claims 2-4, 13-26, and 57-58

The Examiner argues that **claims 2-4, 13-26, and 57-58** are indefinite for failing to particularly point out and distinctly claim the subject matter.

These claims were originally rejected because they depend from claims 65 and 12, which have been amended.

Therefore, claims 2-4, 13-26, and 57-58 should not be rejected under § 112.

Claim 67

The Examiner argues that **claim 67** is indefinite for failing to particularly point out and distinctly claim the subject matter.

Claim 67 should be allowable for the same reasons as claim 65, from which it depends.

Therefore, claims 67 should not be rejected under § 112.

Applicants respectfully submit that the rejection of claims 2-4, 12-26, 57-58, and 67 under § 112 should be withdrawn.

Rejection Under 35 U.S.C. § 103(a) of Claims 2-4, 12-19, 21, 23, 27, 65 and 67

The Examiner rejects **claims 2-4, 12-19, 21, 23, 27, 65 and 67** under 35 U.S.C. § 103(a) as unpatentable over Singh et al. (US 2002/0169657).

Claim 65

Claim 65 as amended includes the limitations:

A computer-implemented method of responding to a disruptive event that impacts demand into the indefinite future for a plurality of items at one or more locations, including:

modeling with a data structure stored in computer readable memory one or more disruptive events that impact demand for a plurality of items at one or more selling locations,

wherein the disruptive events, unlike [[a]] transitory promotional events, has an impact on the demand into the indefinite future for the plurality of items that are ~~is~~ represented in the data structure by a data tuple including at least

a good identifier for a good,

a selling location identifier for a selling location,

a start date and no effective stop date, and

at least a step function that represents an impact estimate of disruption to demand for the good at the selling location beginning at the start date;

for the disruptive events, eliciting from a retail manager data to describe the

disruptive events and populate the data tuple, including an estimate of the step functions representing the disruptive events;

forecasting unit inventory and unit sales at a per-item, per-location level for a forecasting cycle using the step functions ~~data structure~~ to take into account the disruptive events; and

generating, from results of the forecasting using the data structure consistently across analytical tools, analytical reports that support retailing activities.

These limitations are not found in Singh et al.

In the context of this claim (OA at 7), the Examiner makes a very limited claim that it is old and well known to use step functions "to represent data over intervals." Since the Examiner has not linked step functions to the field of inventory control or to the area in which our claims are focused, we see this statement as akin to "integers" being old and well known. It does not follow that Singh or anyone else in relevant art found it obvious to do as we claim. Instead, under *Graham v. John Deere* and *KSR*, this is an instance of long felt need -- thousands of years of inventory control; decades of computerized inventory control -- and failure of numerous people working in the art to reach the inventive approach that we claim.

The amended claim clarifies the interaction between the user and the assistance provided by the computer system.

We believe that the sentiment of our recent interview was that the amended claim distinguishes over the prior art.

We look forward to the Examiner's supplemental search.

Therefore, claim 65 should be allowable over Singh et al.

Claims 2-4, 12-19, 21, 23, 27 and 67

Applicants previously distinguished claims 2-4, 12-19, 21, 23, 27 and 67 over Singh et al. and ask that the Examiner further consider the grounds previously given in light of the amended and clarified language of claim 65, from which these claims depend.

Rejection Under 35 U.S.C. § 103(a) of Claims 4, 20, and 24-26

The Examiner rejects **claims 4, 20, and 24-26** under 35 U.S.C. § 103(a) as unpatentable over Singh et al. (US 2002/0169657) in view of Fields et al. (US 5,459,656).

Applicants previously distinguished claims 4, 20, and 24-26 over Singh et al. in view of Fields and ask that the Examiner further consider the grounds previously given in light of the amended and clarified language of claim 65, from which these claims depend.

Rejection Under 35 U.S.C. § 103(a) of Claim 22

The Examiner rejects **claim 22** under 35 U.S.C. § 103(a) as unpatentable over Singh et al. (US 2002/0169657) in view of Crosswhite (US 6,611,726).

Applicants previously distinguished this claim over Singh et al. in view of Crosswhite and ask that the Examiner further consider the grounds previously given in light of the amended and clarified language of claim 65, from which this claim depends.

Rejection Under 35 U.S.C. § 103(a) of Claim 58

The Examiner rejects **claim 58** under 35 U.S.C. § 103(a) as unpatentable over Singh et al. (US 2002/0169657) in view of Ghosh et al. ("Formulating Retail Location Strategy in a Changing Environment").

Applicants previously distinguished this claim over Singh et al. in view of Ghosh et al. and ask that the Examiner further consider the grounds previously given in light of the amended and clarified language of claim 65, from which this claim depends.

Rejection Under 35 U.S.C. § 102(b) of Claim 59

The Examiner rejects **claim 59** under 35 U.S.C. § 102(b) as anticipated by Fields et al. (US 5,459,656).

We have amended claim 59 to include limitations similar to the limitations of claim 65. We request that the Examiner further consider the amended claim 59 and respectfully submit that claim 59 should be allowable over Fields et al.

Rejection Under 35 U.S.C. § 103(a) of Claim 60

The Examiner rejects **claim 60** under 35 U.S.C. § 103(a) as unpatentable over Fields et al. (US 5,459,656) in view of Waller et al. (US 2003/0195791).

Applicants previously distinguished this claim over Fields et al. in view of Waller et al. and ask that the Examiner further consider the grounds previously given in light of the amended and clarified language of claim 59, from which this claim depends.

Rejection Under 35 U.S.C. § 103(a) of Claim 61

The Examiner rejects **claim 61** under 35 U.S.C. § 103(a) as unpatentable over Fields et al. (US 5,459,656) in view of Ghosh et al. ("Formulating Retail Location Strategy in a Changing Environment").

Applicants previously distinguished this claim over Fields et al. in view of Ghosh et al. and ask that the Examiner further consider the grounds previously given in light of the amended and clarified language of claim 59, from which this claim depends.

CONCLUSION

Applicants respectfully submit that the pending claims are now in condition for allowance and thereby solicit acceptance of the claims as now stated.

Applicants would welcome an interview, if the Examiner is so inclined. The undersigned can ordinarily be reached at his office at (650) 712-0340 from 8:30 a.m. to 5:30 p.m. PST, Monday through Friday, and can be reached at his cell phone at (415) 902-6112 most other times.

Fee Authorization. The Commissioner is hereby authorized to charge underpayment of any additional fees or credit any overpayment associated with this communication to Deposit Account No. 50-0869 (BLFR 1006-1).

Respectfully submitted,

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